

# Examination

# California State Lands Commission

The California State Lands Commission guarantees equal opportunity to all regardless of race, color, creed, national origin, sex, marital status, religion, political affiliation, ancestry, disability, age, medical condition, sexual orientation, political/religious opinion, or discrimination filing.

It is the objective of the State of California to achieve a drug-free work place. Any applicant for state employment will be expected to behave in accordance with this objective because the use of illegal drugs is inconsistent with the law of the state, the rules governing civil service and the special trust placed in public servants.

#### ASSOCIATE ENGINEER, PETROLEUM STRUCTURES

#### THIS IS AN OPEN EXAMINATION – STATEWIDE

FINAL FILING DATE: June 22, 2007

**HOW TO APPLY:** Applications (Form 678) must be POSTMARKED no later than the final filing date. Applications postmarked after the final filing date will not be accepted for any reason.

Submit applications to:

California State Lands Commission 100 Howe Avenue, Suite 100-South Sacramento, CA 95825-8202 Attn: Personnel

If you have a disability and need special testing arrangements, mark the appropriate box in Part 2 of the "Application for Examination". You will be contacted to make specific arrangements.

### DO NOT SUBMIT APPLICATIONS TO THE STATE PERSONNEL BOARD.

#### NO WRITTEN TEST REQUIRED

**QUALIFICATIONS APPRAISAL PANEL INTERVIEW:** It is anticipated that interviews will be held in July/August 2007.

NOTE: Accepted applicants are required to bring either a photo identification card or two forms of signed identification to the Qualifications Appraisal Panel Interview.

Interviews will be scheduled in Long Beach and/or Hercules.

#### SALARY RANGE: \$6,838 - \$8,304 per month

**THIS IS AN OPEN STATEWIDE EXAMINATION.** Applications will not be accepted on a promotional basis.

#### REQUIREMENTS FOR ADMITTANCE TO THE EXAMINATION

**NOTE:** All applicants must meet the entrance requirements for this examination by June 22, 2007, the final filing date.

Experience: Three years of increasingly responsible experience in civil, structural, or petroleum engineering work involving the design, construction, inspection, or maintenance of petroleum engineer structures, such as drilling platforms, marine terminals, oil/gas pipelines, or oil and gas processing facilities. (A Graduate Degree in Civil, Structural, or Petroleum Engineering may be substituted for one year of this experience.) AND

Education: Equivalent to graduation from college with major work in civil or structural engineering. (Additional qualifying experience in civil, structural, or petroleum engineering may be substituted for the required education on a year-for-year basis.

#### ADDITIONAL DESIRABLE QUALIFICATIONS

California Registration as a Civil or Structural Engineer; and experience with structural engineering software applications.

#### THE POSITION

Under supervision, perform journey level engineering work in regard to various petroleum engineering structures, such as offshore drilling platforms, marine terminals, offshore moorings, and oil/gas pipelines and related facilities, located on or adjacent to State lands or waters; and perform other related work.

#### **TYPICAL TASKS**

Develop or, as a member of a team, assist in the development of engineering inspection guidelines/standards for various structures, such as pipelines, docks, piers, wharves, offshore moorings, and other related facilities, operations, or structures under the jurisdiction of the Commission; perform structural analysis and design review of offshore platforms and marine terminals in regard to such factors as waves, currents, vessel loadings, and impact; perform field inspections of marine terminals, offshore platforms, and other facilities; perform seismic reassessment and subsea stability analysis of petroleum structures; review various aging facilities for requalification to current structural and safety standards; perform various other engineering analysis on such structures as pipelines, vapor recovery systems, terminals, and platforms in regard to structural integrity, structural load limits, and any other applicable design standards or regulations; utilize various structural engineering application software, such as threedimensional finite element codes, nonlinear soil-structure interaction methods, and reduced degree-of-freedom nonlinear finite element codes; utilize database application software for the storage, retrieval, and indexing of various engineering data; consult with various governmental, academic, and oil industry personnel in regard to regulations, recent technology, recommended practices, etc.; perform engineering analysis, design check, and review of proposals to build new or modify existing petroleum structures, such as platforms, pipelines, various subsea structures and certain nonpetroleum marine structures, such as wastewater treatment plant outfalls and monitor construction or modifications of same; perform onsite compliance investigations to determine conformance with basic engineering standards, applicable regulations, and environmental standards; monitor and inspect operator's efforts in the dismantling, removal, and cleanup of marine facilities, such as platform abandonments, pipeline removals, and other subsea structures; participate in and evaluate research projects related to petroleum structures; perform the review and analysis of structures and systems for operational safety and/or reliability; perform various reviews and analyses for the purpose of CEQA (California Environmental Quality Act) compliance; assist and take direction from incumbents in the classes of Senior Engineer, Petroleum Structures (Supervisor), and Senior Engineer, Petroleum Structures (Specialist).

## POSITION(S) MAY EXIST IN LONG BEACH AND THE SAN FRANCISCO BAY AREA.

#### SUPPLEMENTAL APPLICATION

In addition to the Qualifications Appraisal Interview, the department may require that competitors complete a supplemental

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#### SEE REVERSE SIDE FOR ADDITIONAL INFORMATION

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#### **ASSOCIATE ENGINEER, PETROLEUM STRUCTURES**

application designed to explore education and experience related to the Associate Engineer, Petroleum Structures classification. The supplemental application would be sent to all persons who meet the requirements for admittance to this examination. The supplemental application would be used to screen only those individuals who best meet the needs of the California State Lands Commission to the Qualifications Appraisal Panel Interview, and would be based on the knowledges and abilities listed under the "Scope" section of this bulletin. If this option is used, persons who do not return the completed supplemental application will be considered to have withdrawn from this examination.

#### **EXAMINATION INFORMATION**

This examination will consist of a qualifications appraisal interview. In order to obtain a position on the eligible list, a minimum rating of 70% must be attained in the interview.

#### **QUALIFICATIONS APPRAISAL – WEIGHTED 100%**

#### SCOPE:

In addition to evaluating the competitor's relative abilities as demonstrated by quality and breadth of experience, emphasis in the examining interview will be on measuring competitively, relative to job demands, each competitor's:

#### A. Knowledge of:

- Principles of problem solving and process improvements;
- Principles and practices of civil and structural engineering;
- 3. Strengths, properties, and proper use of materials in engineering constructions;
- 4. Stress/structural analysis:
- 5. Engineering economics;
- Principles and practices of petroleum engineering;
- 7. Engineering codes and regulations;

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- 8. Marine construction practices;
- State and Federal safety orders as they apply to engineering structures, such as offshore platforms, marine terminals, offshore multipoint moorings, and petroleum pipelines;
- Various aspects of the marine environment which impact engineering structures in or adjacent to the marine environment;
- Environmental regulations as they apply to engineering structures in or near State lands or waters;
- 12. Personal computer application software.

#### B. Ability to:

- Prepare and interpret civil, structural, and petroleum engineering reports, plans, specifications, and correspondence;
- Analyze various engineering data and develop appropriate conclusions and recommendations;
- Inspect and judge the adequacy of various engineering structures;
- 4. Effectively communicate and establish and maintain cooperative relations with those contacted on the job;
- Use applicable engineering applications software;
- Make engineering recommendations which strike a balance between technical, economic, operational, and environmental factors.

<u>ELIGIBLE LIST</u>: The list will be abolished 12 months after it is established unless the needs of the service and conditions of the list warrant a change in this period.

Veterans' Preference will not be granted in this examination. Career Credit Points will not be granted in this examination.

#### **GENERAL INFORMATION**

It is the candidate's responsibility to contact the State Lands Commission Personnel Office three days prior to the written test date if he/she has not received his/her notice.

For an examination without a written feature, it is the candidate's responsibility to contact the State Lands Commission Personnel Office at (916) 574-1910 three weeks after the final filing date if he/she has not received a progress notice.

If a candidate's notice of oral interview or performance test fails to reach him/her prior to the day of the interview due to a verified postal error, he/she will be rescheduled upon written request.

Applications are available at the State Personnel Board office, local offices of the Employment Development Department and the State Lands Commission.

If you meet the requirements stated on the reverse, you may take this examination, which is competitive. Possession of the entrance requirement does not assure a place on the eligible list. Your performance in the examination described on the other side of this bulletin will be compared with the performance of the others who take this test, and all candidates who pass will be ranked according to their scores.

The State Personnel Board reserves the right to revise the examination plan to better meet the needs of the services if the circumstances under which this examination was planned change. Such revision will be in accordance with civil service law and rules and all competitors will be notified.

Examination locations: When a written test is part of the examination, it will be given in such places in California as the number of candidates and conditions warrant. Ordinarily, oral interviews are scheduled in Sacramento, San Francisco and Los Angeles. However, locations of interviews may be limited or extended as conditions warrant.

Eligible Lists: Eligible lists established by competitive examination, regardless of date, must be used in the following order: 1) subdivisional promotional, 2) departmental promotional, 3) multi departmental promotional, 4) service wide promotional; 5) departmental open, 6) open. When there are two lists of the same kind, the older must be used first. Eligible lists will expire in from one to four years unless otherwise stated on this bulletin.

General Qualifications: Candidates must possess essential personal qualifications including integrity, initiative, dependability, good judgment, and ability to work cooperatively with others; and a state of health consistent with the ability to perform the assigned duties of the class. A medical examination may be required. In open examinations, investigation may be made of employment records and personal history and fingerprinting may be required.

Interview Scope: If an interview is conducted, in addition to the scope described on the other side of this bulletin, the panel will consider education, experience, personal development, personal traits, and fitness. In appraising experience, more weight will be given to the breadth and recency of pertinent experience and evidence of the candidate's ability to accept and fulfill increasing responsibilities than to the length of his/her experience. Evaluation of a candidate's personal development will include consideration of his/her recognition of his/her own training needs; his/her plans for self-development; and the progress he/she has made in his/her efforts toward self-development.

High School Equivalence: Equivalence to completion of the 12th grade may be demonstrated in any one of the following ways: 1) passing the General Educational Development (GED) Test; 2) completion of 12 semester units of college-level work; 3) certification from the State Department of Education, a local school board, or high school authorities that the candidate is considered to have education equivalent to graduation from high school; or 4) for clerical and accounting classes, substitution of business college work in place of high school on a year-for-year basis.

Veterans Preference: California law limits the granting of veterans preference credits to entrance examinations. When credit is granted it is as follows: 10 points for veterans, widows or widowers of veterans, and spouses of 100% disabled veterans; and 15 points for disabled veterans. Directions for applying for veterans preference are on the Veterans Preference Application which is available from the State Personnel Board offices or written test proctors.

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